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Jeffrey C. Fereday (Idaho State Bar # 2719) Michael C. Creamer (Idaho State Bar # 4030) John M. Marshall (Idaho State Bar # 5628) Bradley V. Sneed (Idaho State Bar # 6254) GIVENS PURSLEY LLP 601 Bannock Street, Suite 200 P.O. Box 2720 Boise, ID 83701-2720

DEPARTMENT OF WATER RESOURCES

RECEIVED

JAN 2 4 2006

Telephone: (208) 388-1200 Facsimile: (208) 388-1300

Attorneys for Idaho Ground Water Appropriators, Inc.

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER TO VARIOUS WATER RIGHTS HELD BY OR FOR THE BENEFIT OF A & B IRRIGATION DISTRICT, AMERICAN FALLS RESERVOIR DISTRICT #2, BURLEY IRRIGATION DISTRICT, MILNER IRRIGATION DISTRICT, MINIDOKA IRRIGATION DISTRICT, NORTH SIDE CANAL COMPANY, and TWIN FALLS CANAL COMPANY

AFFIDAVIT OF BRAD V. SNEED IN SUPPORT OF IGWA'S AND POCATELLO'S MOTION TO COMPEL PRODUCTION OF DOCUMENTS OR IN THE ALTERNATIVE MOTION IN LIMINE

STATE OF IDAHO)	
)	SS
COUNTY OF ADA)	

Bradley V. Sneed, being first duly sworn on oath, deposes and hereby states as follows:

- I am one of the attorneys of record for Idaho Ground Water Appropriators, Inc.
 ("IGWA"), in the above-captioned matter before the Idaho Department of Water Resources.
- 2. Attached hereto as Exhibit A is a true and correct copy of a demand letter from White & Jankowski, L.L.P. to counsel for the Surface Water Coalition members dated January 5, 2006.

- 3. Attached hereto as Exhibit B is a true and correct copy of an agreement executed by the Surface Water Coalition, IGWA, and the City of Pocatello on January 10, 2006 ("Expert Disclosure Agreement"), whereby the parties agreed to exchange certain information and data considered by each of the parties' experts in preparing their written expert reports pursuant to the July 22, 2005 Scheduling Order.
- 4. Exhibit C is a true and correct copy of the Director's approval of the Expert Disclosure Agreement, dated January 13, 2006.
- 5. Attached hereto as Exhibit D is a true and correct copy of a letter dated January 19, 2006, from Givens Pursley LLP to counsel for four of the SWC members, wherein IGWA again requested certain data and information from SWC pursuant to the parties' Expert Disclosure Agreement.
- 6. Attached hereto as Exhibit E is a true and correct copy of a letter dated January 19, 2006, from White & Jankowski, L.L.P to counsel for four of the SWC members, wherein Pocatello again requested certain data and information from SWC pursuant to the parties' Expert Disclosure Agreement.
- 7. Attached hereto as Exhibit F is a true and correct copy of page 1-3 from the Surface Water Coalition's expert report filed in this matter.
- 8. Attached hereto as Exhibit G are two documents from a number of documents that were attached to a January 20, 2006, email from John Simpson to IGWA and Pocatello. These documents were intended to update the Surface Water Coalition's expert report filed in this case.
- 9. Attached hereto as Exhibit H is a true and correct copy of a document prepared by SWC entitled "Second Information Response, Surface Water Coalition Experts, January 20, 2006", which SWC emailed to IGWA and Pocatello at approximately 6:51p.m.on Friday,

January 20, 2006, and which was received by IGWA at approximately 12:13p.m. on Saturday, January 21, 2006.

10. On or about January 16, 2006, SWC supplied IGWA and Pocatello with a compact disc purportedly containing the information and data requested pursuant to the Expert Disclosure Agreement. Attached hereto as Exhibit I is a true and correct copy of an excerpt from that compact disc, indicating SWC's response to Pocatello's information requests set forth in Exhibit B to the Expert Disclosure Agreement.

DATED this 24th day of January, 2006.

Brad W. Sneed

SUBSCRIBED AND SWORN TO before me this 24th day of January, 2006.

[seal] OTAP

Notary Public for Idaho

Residing at B

My commission expires 3.2.2.2007

CERTIFICATE OF SERVICE

I hereby certify that on this 24th day of January 2006, I served a true and correct copy of the foregoing by delivering it to the following individuals by the method indicated below, addressed as stated.

Mr. Karl J. Dreher, Director		_ U.S. Mail
Idaho Department of Water Resources		_ Facsimile
322 East Front Street		Overnight Mail
P.O. Box 83720	X	_ Hand Delivery
Boise, ID 83720-0098		E-mail
C. Tom Arkoosh, Esq.		_ U.S. Mail
Arkoosh Law Offices, Chtd.		_ Facsimile
301 Main Street		Overnight Mail Hand Delivery
P.O Box 32		_ Hand Delivery
Gooding, ID 83330		_ E-mail
W. Kent Fletcher, Esq.	X	_ U.S. Mail
Fletcher Law Office		_ Facsimile
P.O. Box 248		_ Overnight Mail
Burley, ID 83318-0248		_ Hand Delivery
·		_ E-mail
Roger D. Ling, Esq.	X	_ U.S. Mail
Ling, Robinson & Walker		_ Facsimile
615 H St.		_ Overnight Mail
P.O. Box 396		Overnight MailHand Delivery
Rupert, ID 83350-0396		_ E-mail
John A. Rosholt, Esq.	X_	_ U.S. Mail
John K. Simpson, Esq.		_ Facsimile
Travis L. Thompson, Esq.		Overnight Mail
Barker, Rosholt & Simpson		Hand Delivery
113 Main Avenue West, Ste. 303		_ E-mail
Twin Falls, ID 83301-6167		
Kathleen Marion Carr, Esq.	X_	_ U.S. Mail
Office of the Field Solicitor		_ Facsimile
U.S. Department of the Interior		Overnight Mail
550 West Fort Street, MSC 020		_ Hand Delivery
Boise, ID 83724-0020		E-mail

Matt J. Howard, Esq. U.S. Bureau of Reclamation Pacific Northwest Region 1150 N. Curtis Road Boise, ID 83706-1234		U.S. Mail Facsimile Overnight Mail Hand Delivery E-mail
Scott L. Campbell, Esq. Moffatt Thomas Barrett Rock & Fields, Chtd. 101 S. Capitol Blvd., 10th Floor P.O. Box 829 Boise, ID 83701-0829		U.S. Mail Facsimile Overnight Mail Hand Delivery E-mail
Michael S. Gilmore, Esq. Deputy Attorney General Civil Litigation Division Office of the Attorney General P.O. Box 83720 Boise, ID 83720-0010		U.S. Mail Facsimile Overnight Mail Hand Delivery E-mail
Josephine P. Beeman, Esq. Beeman & Associates PC 409 West Jefferson Boise, ID 83702-6049		U.S. Mail Facsimile Hand Delivery E-mail
Sarah A. Klahn, Esq. White & Jankowski, LLP 511 16th Street, Suite 500 Denver, CO 80202		U.S. Mail Facsimile Overnight Mail E-mail
Terry T. Uhling, Esq. J.R. Simplot Company 999 Main Street P.O. Box 27 Boise, ID 83707		U.S. Mail Facsimile Overnight Mail Hand Delivery E-mail
Mr. Ron Carlson Mr. Lewis Rounds Idaho Department of Water Resources Eastern Regional Office 900 North Skyline Dr. Idaho Falls, ID 83402-6105	_X	U.S. Mail Facsimile Overnight Mail Hand Delivery E-mail

Mr. Allen Merritt	X	U.S. Mail
Ms. Cindy Yenter		Facsimile
Idaho Department of Water Resources		Overnight Mail
Southern Regional Office		Hand Delivery
1341 Fillmore St., Ste. 200		E-mail
Twin Falls, ID 83301-3033		

White & Jankowski

Lawyers

January 5, 2006

VIA ELECTRONIC TRANSMISSION

Roger D. Ling Ling Robinson & Walker P.O. Box 396 Rupert, ID 83350

John K. Simpson Travis L. Thompson Barker Rosholt & Simpson, LLP 113 Main Avenue West, Suite 303 Twin Falls, ID 83301-6167

C. Tom Arkoosh Arkoosh Law Offices, Chtd. P.O. Box 32 Gooding, ID 83330

W. Kent Fletcher Fletcher Law Office P.O. Box 248 Burley, ID 83318

Re: Surface Water Coalition Expert Report

Gentlemen:

For purposes of Pocatello's preparing rebuttal expert reports, please provide us copies of those documents that are checked on the attached copy of the bibliography, which is contained in your expert report.

Also, please provide copies of the following reports, documents, data or other information (referred to here collectively as "materials"), with respect to Chapters 8 and 9 of the expert report:

White & Jankowski, L.L.P.
Kittredge Building, 511 Sixteenth Street, Suite 300, Denver, Colorado 80202
(303) 595-9441 Fax (303) 825-5632 mail@white-jankowski.com

- 1. Electronic data and summaries of WD01 diversions (natural flow, storage and total) for the 1930 2004 period (all data, not limited to the April September period).
- 2. Electronic data and summaries, spreadsheets and charts relating to historical diversions of the SWC members individually and collectively (Table 8-1 through 8-14 and Figures 8-1 through 8-36).
- 3. Electronic data and summaries, spreadsheets and charts relating to the irrigation diversion requirements for the SWC members (Tables 8-15 and 8-16).
- 4. Data, input and output files, and summaries thereof for the Accounting Program analyses described in Chapter 9.
- 5. All materials describing how the accounting program analyses described in Chapter 9 were performed.

Because the rebuttal reports are due on January 13, 2006, we request that you provide these materials to us by electronic communication no later than next Monday, January 9. We later may request additional materials for purposes of the expert depositions, but we will appreciate your providing the materials designated above now.

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AGREEMENT

The following agreement is made as of January 10, 2006, between the Surface Water Coalition (A&B Irrigation District, American Falls Reservoir District No. 2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Irrigation Company and Twin Falls Canal Company), Idaho Ground Water Appropriators, Inc. ("IGWA"), and the City of Pocatello ("the Parties"). These entities are Parties to the Surface Water Delivery Case scheduled for hearing before IDWR beginning March 6, 2006, and this Stipulation is made for purposes of those proceedings.

Recitals

- On July 22, 2005, the Director of the IDWR ("Director") entered a Scheduling
 Order, which addressed, among other things, expert disclosures to be made by the
 Parties. The Scheduling Order reads, in pertinent part, as follows:
 - "By October 17, 2005, the parties must submit expert witness reports. The report shall contain a complete statement of all opinions to be expressed and the basis and reasons therefor; the data or other information considered by the witness in forming the opinions;"
- The date for submission of the expert reports later was modified, but the language describing their content was not.
- 3. The Parties timely exchanged expert reports. Subsequently, they have discussed what "data or other information considered" must be provided to each other. IGWA has requested materials from the Surface Water Coalition, as described in the attached Exhibit A, and Pocatello has requested information from the Surface Water Coalition, as described in the attached Exhibit B. The information requested from IGWA and Pocatello by the Surface Water Coalition is attached as Exhibit C.
- 4. The Parties also have discussed the timing of expert depositions and of expert rebuttal reports, and agree that conducting depositions of experts before the exchange of rebuttal expert reports is a more expeditious means to proceed with discovery while maintaining the current hearing date.

NOW, THEREFORE, THE PARTIES DO HEREBY AGREE:

 The expert rebuttal report deadline, currently scheduled for January 13, 2006, should be extended until February 10, 2006 to allow depositions to be conducted before exchanging rebuttal reports.

- The Surface Water Coalition will provide or identify for ready access to IGWA and to Pocatello the data or other information considered by the witness in forming the opinions and relating to those subjects set out in the attached Exhibits A and B. IGWA and Pocatello will provide or identify for ready access to the Surface Water Coalition the data or other information considered by the witness in forming the opinions and relating to those subjects set out in Exhibit C.
- 7. The Parties will make best efforts to exchange the data and information described in paragraphs 6 7 above, wherever possible, no later than 5pm, MST on Monday, January 16, 2006, with the exception of data and information relating to the VIC Model, which the Surface Water Coalition will make best efforts to deliver to IGWA and Pocatello no later than Wednesday, January 18, 2006.
 - 8. If any Party claims that any of the foregoing data and information is proprietary, that Party shall propose to provide such material under a protective stipulation, to be tendered by such Party no later than January 12, 2006, which will limit the use of such material to this proceeding only, and provide for the return of the same.
 - The Parties will begin expert depositions in Boise, Idaho, beginning in the afternoon of Monday, January 23, 2006. The Parties currently estimate that it will take approximately three weeks to conduct these expert depositions. The Parties will use their best efforts to agree no later than January 12, 2006 upon which witnesses will be deposed and on what schedule.
 - 10. The Parties will jointly move the Director for this change in schedule, and provide him with a copy of this stipulation.

IF A PARTY DOES NOT RECEIVE THE DATA AND INFORMATION REQUESTED AS DESCRIBED ABOVE, THE FOLLOWING ADDITIONAL PROVISIONS SHALL APPLY:

11. The Party alleging that the appropriate data and information has not been received (the "Complaining Party") shall move to compel the same after appropriate request and conference.

This agreement is made as of January 10, 2006, as a stipulation in these proceedings.

C. Tom Arkoosh

American Falls Reservoir District #2

John Simpson

Twin Falls Canal Company, Milner Irrigation Dist. and North Side Canal Company

208 934 8873;

W. Kent Fletcher

Minidoka Irrigation District

Roger Ling

A & B Irrigation and Burley Irrigation District

Michael C. Creamer

For the Idaho Ground Water Appropriators, Inc.

William A. Hillhouse II

For the City of Pocatello

Exhibit A

Kenneth L. Pursley

Bradley V. Sneed

J. Will Varin

RETIRED

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Conley E. Ward

Robert 8. White

Raymond D. Givens

James A. McClure

H. Barton Thomas, LL.M.

Jeremy G. Ladle

Franklin G. Lee

David R. Lomberdi

Emily A. MacMaster John M. Marshall

Kenneth R. McClure

Cynthia A. Melilio Christopher H. Meyer

L. Edward Miller

Patrick J. Miller

Angela K. Neison

Deborah E. Nelson

Kelly Greens McConnell

Judson B. Montgomery

W. Huch O'Riordan, LL.M.

Ggry G. Allen

Kristen A. Atwood

Kelly T. Barbour

William C. Cole

Michael C. Creamer

Thomas E. Dvorak

Roy Lewis Elguren

Jeffrey C. Fereday

Steven J. Hippier Kan T. Klein

Anne C. Kunkel

Timothy P. Feamside

Melissa A. Pinocchio'

Dabora K. Kristensen

Christopher J. Beason



LAW OFFICES 601 W. Bannock Streat PO Box 2725, Boise, Ideho 83701 TELEPHONE: 208 388-1200 FACSIMILE: 208 388-1300 WEBSITE: www.glvenspurslev.com

January 5, 2006

John K. Simpson, Esq. Barker, Rosholt & Simpson, LLP 205 North 10th, Suite 520 P.O. Box 2139 Boise, ID 83701-2139

Re:

Surface Water Coalition Expert Report

Our File No. 3915-81

Dear John:

I tried unsuccessfully to reach you by phone this afternoon. In reviewing the expert reports that the Surface Water Coalition produced last Friday, Chuck Brendecke has noted that the underlying data files used by HDR, particularly with respect to various model runs and water supply analysis, were not included on the CD which was provided. These will need to be provided so that Chuck will be able to evaluate the data, assumptions, etc. that underlie HDR's analysis and conclusions in contemplation of preparing his rebuttal expert report. I have enclosed a list of the files that Chuck will need.

Chuck will need to obtain these files in computer readable form, unless those files are IDENTICAL to what is available from the IDWR or IWRRI web/ftp sites. I expect that other parties will want to have access to these files as well.

Please contact me as soon as possible so that we can arrange a suitable means for delivering these data files.

Sincerely.

Enclosure

çç;

Mr. Karl J. Dreher W. Kent Fletcher, Esq. Matt J. Howard, Esq. Josephine P. Beeman, Esq. James C. Tucker, Esq.

Phillip J. Rassier, Esq. Roger D. Ling, Esq. Scott L. Campbell, Esq. Sarah A. Klahn, Esq. James S. Lochhead, Esq.

C. Tom Arkoosh, Esq. Kathleen Marion Carr, Esq. Michael S. Gilmore, Esq. Terry T. Uhling, Esq.

MCC:kdt SACLIENTS391581MCC Lir to John Simpson re SWC Expert Report Data.DOC

Electronic Data Request

Hydrology and Hydroclimate Data

1. Site information (e.g. SNOTEL), and snow water equivalent data used in the analysis described in Appendix U.

2. Precipitation data for stations in Appendix V.

3. VIC Model (exact version used), source code and compiled model (specify platform and compiler used in model compilation), Input datasets, and Outputs from the UW VIC analysis described in Appendix X.

4. Data used to plot figures in Appendix Y.

- Input data used in calculating unregulated annual Snake River inflow above American Falls, Appendix Z.
- 6. Historical ground water level data for wells plotted on map in Appendix AF.
- 7. Ground water level data for wells, if any, in addition to wells used in Appendix AF.
- 8. Test settings (e.g. two-sided versus one-sided Kendall test, alternative hypotheses) for the StatsDirect statistical package used in trend analysis presented in Appendix AF.

9. Data for wells presented in Appendix AK.

- 10. Data for wells and precipitation data presented in Appendix AL.
- 11. Spring flow data, and settings for statistical tests presented in Appendix AM.

Ground Water Modeling Files

12. Model input and output files for ESPAM ver 1.1 curtailment runs.

Accounting Model files, Return Flow and Reach Gains Data

The following model files are needed for both the 2004 actual water distribution run and the hypothetical water distribution run that assumes groundwater pumping never occurred.

1. Input files.

- 1.1. All indicator files (main indicator file, reservoir storage rights indicator file, system indicator file, canal/pump indicator file)
- 1.2. All Hydrologic data files (exchange well history file, river flow history file, diversion history file, reservoir history file)
- 1.3. All allocation files (diversion allocation file, reservoir allocation file, miscellaneous allocation file).
- 1.4. Exchange pump list file, diversion list file, and water rights file.

2. All output files including report files.

3. Other files (system information file, diversion name file, river flow station name file)

4. Source code and executable files.

Data for return flow calculations (presented in appendix AC of SWC rebuttal report).

- All the raw diversion data and return flow data used to calculate returns as a
 percentage of irrigation diversions for Heise to Shelley, Shelley to near Blackfoot,
 Near Blackfoot to Neeley, Neeley to Minidoka, and Minidoka to Milner reaches.
- 2. The workbook or spreadsheet that includes all the data and calculations.

All the temporal reach gains data used to develop Appendix AN figures of SWC rebuttal report.

All groundwater level and reach gains data used to develop Appendix AO figures of SWC rebuttal report.

Exhibit B

White & Jankowski

Lawyers

January 5, 2006

VIA ELECTRONIC TRANSMISSION

Roger D. Ling Ling Robinson & Walker P.O. Box 396 Rupert, ID 83350

John K. Simpson Travis L. Thompson Barker Rosholt & Simpson, LLP 113 Main Avenue West, Suite 303 Twin Falls, 1D 83301-6167

C. Tom Arkoosh Arkoosh Law Offices, Chtd. P.O. Box 32 Gooding, ID 83330

W. Kent Fletcher Fletcher Law Office P.O. Box 248 Burley, ID 83318

Re: Surface Water Coalition Expert Report

Gentlemen:

For purposes of Pocatello's preparing rebuttal expert reports, please provide us copies of those documents that are checked on the attached copy of the bibliography, which is contained in your expert report.

Also, please provide copies of the following reports, documents, data or other information (referred to here collectively as "materials"), with respect to Chapters 8 and 9 of the expert report:

White & Jankowski, L.L.P.
Kittredge Building, 511 Sixteenth Street, Suite 300, Denver, Colorado 80202
(303) 595-9441 Fax (303) 825-5632 mail@white-fankowski.com

- 1. Electronic data and summaries of WD01 diversions (natural flow, storage and total) for the 1930 2004 period (all data, not limited to the April September period).
- 2. Electronic data and summaries, spreadsheets and charts relating to historical diversions of the SWC members individually and collectively (Table 8-1 through 8-14 and Figures 8-1 through 8-36).
- 3. Electronic data and summaries, spreadsheets and charts relating to the irrigation diversion requirements for the SWC members (Tables 8-15 and 8-16).
- 4. Data, input and output files, and summaries thereof for the Accounting Program analyses described in Chapter 9.
- 5. All materials describing how the accounting program analyses described in Chapter 9 were performed.

Because the rebuttal reports are due on January 13, 2006, we request that you provide these materials to us by electronic communication no later than next Monday, January 9. We later may request additional materials for purposes of the expert depositions, but we will appreciate your providing the materials designated above now.

William A. Hillhouse II

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Exhibit C

Document Request to IGWUA

- All Brendecke spreadsheets used to prepare graphs and tables in Expert Report.
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Document Request to City

- Sullivan's water budget spread sheet.
- All spreadsheets used to prepare the tables and graphs in the Franzoy affidavit.

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER)	
TO VARIOUS WATER RIGHTS HELD BY OR FOR)	ŧ
THE BENEFIT OF A&B IRRIGATION DISTRICT,)	į
AMERICAN FALLS RESERVOIR DISTRICT #2,)	į
BURLEY IRRIGATION DISTRICT, MILNER))
IRRIGATION DISTRICT, MINIDOKA IRRIGATION))
DISTRICT, NORTH SIDE CANAL COMPANY,))
AND TWIN FALLS CANAL COMPANY)	j
)	į
(Water Districts No. 120 and No. 130))

ORDER AMENDING SCHEDULING ORDER OF JULY 22, 2005 (EXPERT REBUTTAL REPORTS)

On January 11, 2006, the Director of the Department of Water Resources ("Director" or "Department") received a *Motion to Amend Rebuttal Expert Report Schedule* ("Motion") from the Idaho Ground Water Appropriators, Inc. ("IGWA") and the City of Pocatello ("Pocatello"). The Motion seeks to amend the Scheduling Order of July 22, 2005, by extending the deadline for exchange of rebuttal expert reports from January 13, 2006, to February 10, 2006. Attached to the Motion is a signed Agreement, whereby members of the Surface Water Coalition agree to the extended deadline for filing of rebuttal expert reports. The Motion further states that the parties consulted with counsel for the United States Bureau of Reclamation ("Bureau") regarding the extension of filing of expert reports. The Motion states that the Bureau has no objection to the extension of the deadline. No other parties to the proceedings submitted expert reports.

ORDER

Based upon consideration of the Motion and attached Agreement, the Director enters the following Order consistent with the foregoing:

IT IS HEREBY ORDERED that the time for submission of rebuttal expert reports is extended from January 13, 2006, to February 10, 2006.

DATED this 13th day of January, 2006

KARL J. OKEHER

Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 13 day of January, 2006, the above and foregoing, was served by the method indicated below, and addressed to the following:

TOM C. ARKOOSH ARKOOSH LAW OFFICES PO BOX 32 GOODING ID 83330 (208) 934-8873 alo@cableone.net	(x) U.S Mail, Postage Prepaid() Facsimile(x) E-mail
W. KENT FLETCHER FLETCHER LAW OFFICE PO BOX 248 BURLEY ID 83318-0248 (208) 878-2548 wkf@pmt.org	(x) U.S. Mail, Postage Prepaid() Facsimile(x) E-mail
ROGER D. LING LING ROBINSON PO BOX 396 RUPERT ID 83350-0396 (208) 436-6804 rdl@idlawfirm.com	(x) U.S. Mail, Postage Prepaid() Facsimile(x) E-mail
JOHN A. ROSHOLT TRAVIS L. THOMPSON BARKER ROSHOLT 113 MAIN AVENUE WEST, SUITE 303 TWIN FALLS ID 83301-6167 (208) 735-2444 jar@idahowaters.com tlt@idahowaters.com	(x) U.S. Mail, Postage Prepaid() Facsimile(x) E-mail
JOHN K. SIMPSON BARKER ROSHOLT PO BOX 2139 BOISE ID 83701-2139 (208) 344-6034	(x) U.S. Mail, Postage Prepaid() Facsimile(x) E-mail

iks@idahowaters.com

JEFFREY C. FEREDAY MICHAEL C. CREAMER GIVENS PURSLEY PO BOX 2720 BOISE ID 83701-2720 (208) 388-1200 cf@givenspursley.com mcc@givenspursley.com (x) U.S. Mail, Postage Prepaid

() Facsimile

(x) E-mail

SCOTT L. CAMPBELL MOFFATT THOMAS PO BOX 829 BOISE ID 83701 (208) 385-5384 slc@moffatt.com (x) U.S. Mail, Postage Prepaid

() Facsimile

(x) E-mail

KATHLEEN M. CARR OFFICE OF THE SOLICITOR 960 BROADWAY, SUITE 400 BOISE ID 83706 (208) 334-1378 (x) U.S. Mail, Postage Prepaid

() Facsimile

MATT HOWARD PN-3130 US BUREAU OF RECLAMATION PACIFIC NORTHWEST REGION 1150 NORTH CURTIS ROAD BOISE ID 83706-1234 (208) 378-5003 mhoward@pn.usbr.gov (x) U.S. Mail, Postage Prepaid

() Facsimile

(x) E-mail

JOSEPHINE P. BEEMAN
BEEMAN & ASSOCIATES
409 WEST JEFFERSON STREET
BOISE ID 83702
(208) 331-0954
jo.beeman@beemanlaw.com

(x) U.S. Mail, Postage Prepaid

() Facsimile

(x) E-mail

SARAH A. KLAHN
WHITE & JANKOWSKI
511 16TH STREET, SUITE 500
DENVER CO 80202
sarahk@white-jankowski.com

(x) U.S. Mail, Postage Prepaid

() Facsimile

(x) E-mail

MICHAEL S. GILMORE ATTORNEY GENERAL'S OFFICE PO BOX 83720 BOISE ID 83720-0010 (208) 334-2830 mike.gilmore@ag.idaho.gov

TERRY T. UHLING
J.R. SIMPLOT COMPANY
999 MAIN STREET
BOISE ID 83702
(208) 336-2110
tuhling@simplot.com

JAMES C. TUCKER
IDAHO POWER COMPANY
1221 WEST IDAHO STREET
BOISE ID 83702
(208) 388-2112
jamestucker@idahopower.com

JAMES S. LOCHHEAD BROWNSTEIN HYATT & FARBER 410 17TH STREET, 22ND FLOOR DENVER CO 80202 (303) 223-1100 jlochhead@bhf-law.com

RON CARLSON
LYLE SWANK
IDWR
900 NORTH SKYLINE DRIVE
IDAHO FALLS ID 83402-6105
(208) 525-7177
ron.carlson@idwr.idaho.gov
lyle.swank@idwr.idaho.gov

- (x) U.S. Mail, Postage Prepaid
 () Facsimile
- (x) E-mail
- (x) U.S. Mail, Postage Prepaid
- () Facsimile
- (x) E-mail
- (x) U.S. Mail, Postage Prepaid
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- () Facsimile
- (x) E-mail
- (x) U.S. Mail, Postage Prepaid
- () Facsimile
- (x) E-mail

ALLEN MERRITT
CINDY YENTER
IDWR
1341 FILLMORE STREET, SUITE 200
TWIN FALLS ID 83301-3033
(208) 736-3037
allen.merritt@idwr.idaho.gov
cindy.yenter@idwr.idaho.gov

- (x) U.S. Mail, Postage Prepaid
- () Facsimile
- (x) E-mail

Victoria Wigle

Administrative Assistant to the Director Idaho Department of Water Resources



LAW OFFICES 601 W. Bannock Street PO Box 2720, Boise, Idaho 83701 TELEPHONE: 208 388-1200 FACSIMILE: 208 388-1300 WEBSITE: www.givenspursley.com

Via Facsimile & U.S. Mail

January 19, 2006

John K. Simpson, Esq. Barker, Rosholt & Simpson, LLP 205 North 10th, Suite 520 P.O. Box 2139 Boise, ID 83701-2139

Re:

SWC Delivery Call Our File No. 3915-81

Dear John and Tom:

Pursuant to our January 10, 2006 Agreement ("Agreement"), we were to exchange specifically identified information and data on Monday, January 16, 2006 and Wednesday, January 18, 2006. I received a CD from you on Monday the 16th, but it does not include all of the information and data you agreed to provide. I have attached a list identifying the deficiencies in this production.

As of midday today, I also have not received any of the VIC model information you agreed to provide by Wednesday, January 18, 2005. Nor have I received any communication from you explaining why.

Consider this a request pursuant to paragraph 11 of the Agreement for full production of the agreed-upon data and information. As we have discussed and agreed, timely exchange of the data considered or relied upon by experts in forming their opinions is vital to properly prepare for depositions of the experts and to otherwise prepare for hearing. Your failure to provide this information, even after we specifically agreed to extend the timeframe for you to provide it, is prejudicing my client.

Gary G. Allen
Kristen A. Atwood
Kelly T. Barbour
Christopher J. Beeson
William C. Cole
Michael C. Creamer
Thomas E. Dvorak
Roy Lewis Eiguren
Timothy P. Feamside
Jeffrey C. Fereday
Melissa A. Finocchio*
Steven J. Hippler
Karl T. Klein
Dabora K. Kristensen
Anne C. Kunkel

Jeremy G. Ladle
Franklin G. Lee
David R. Lombard
John M. Marshali
Kenneth R. McClure
Kelly Greene McConnell
Cynthia A. Meilillo
Christopher H. Meyer
L. Edward Miller
Patrick J. Miller
Judson B. Montgomery
Angela K. Nelson
Deborah E. Nelson
W. Hugh O'Riordan, ŁŁ.M.
Bradfey V. Speed

H. Barton Thomas, I.L.M. J. Will Varin Contey E. Ward Robert B. White

Raymond D. Givens

James A. McClure

Kenneth L. Pursley RETIRED "Licensed in California

C. Tom Arkoosh, Esq. Arkoosh Law Offices, Chtd. 301 Main Street P.O Box 32 Gooding, ID 83330 John K. Simpson, Esq. C. Tom Arkoosh, Esq. January 19, 2006 Page 2

I am available to confer regarding this request by telephone tomorrow morning. If I do not hear from you or if we cannot resolve this by noon tomorrow, I plan to file a motion to compel and/or exclude testimony with the Director.

Sincerely,

Michael C. Creamer

Enclosure

cc:

W. Kent Fletcher, Esq. Matt J. Howard, Esq.

Josephine P. Beeman, Esq.

Roger D. Ling, Esq. Scott L. Campbell, Esq.

Sarah A. Klahn, Esq.

Kathleen Marion Carr, Esq. Michael S. Gilmore, Esq. Terry T. Uhling, Esq.

MCC:kdt sACLIENTS\3915\81\MCC hr re incomplete data.DOC

ATTACHMENT A

Electronic Data Request:

Information pertaining to SWC Expert Reports that has not been provided as of January 19, 2006

Hydrology and Hydroclimate Data

1. VIC Model (exact version used), source code and compiled model (specify platform and compiler used in model compilation), Input datasets, and Outputs from the UW VIC analysis described in Appendix X.

Status: This information has not been provided.

2. Input data used in calculating unregulated annual Snake River inflow above American Falls, Appendix Z.

Status: SWC provided a spreadsheet that may contain these inflow calculations, but it is password protected. Therefore, none of its details or calculations can be reviewed or tested. Nor is it possible to manipulate any of the data contained in it.

3. Historical ground water level data for wells plotted on map in Appendix AF.

Status: SWC did not provide data sets but states that these are either obtained from the historical reports cited on the graphs or from the IDWR database of observation wells (for which they provided the URL). Determining which data sets were relied upon could not be done without considerable effort.

4. Ground water level data for wells, if any, in addition to wells used in Appendix AF.

Status: SWC did not provide data sets but states that these are either obtained from the historical reports cited on the graphs or from the IDWR database of observation wells (for which they provided the URL). Determining which data sets were relied upon could not be done without considerable effort.

5. Data for wells presented in Appendix AK.

Status: SWC did not provide data sets but states that these are either obtained from the historical reports cited on the graphs or from the IDWR

database of observation wells (for which they provided the URL). Determining which data sets were relied upon could not be done without considerable effort.

6. Data for wells and precipitation data presented in Appendix AL.

Status: SWC did not provide data sets but states that these are either obtained from the historical reports cited on the graphs or from the IDWR database (for which they provided the URL). Determining which data sets were relied upon could not be done without considerable effort.

7. Spring flow data presented in Appendix AM.

Status: SWC provided a spreadsheet that may contain the spring flow data calculations, but it is password protected. Therefore, none of its details or calculations can be reviewed or tested. Nor is it possible to manipulate any of the data contained in it.

Ground Water Modeling Files

8. Model input and output files for ESPAM ver 1.1 curtailment runs.

Status: SWC did not provide any model files. If the only ESPAM runs performed by SWC experts were replications of documented IWRRI modeling scenarios, then SWC must confirm this. Otherwise the requested input and output files must be delivered.

Accounting Model files, Return Flow and Reach Gains Data

- 9. Input files, including:
 - 9.1. All indicator files (main indicator file, reservoir storage rights indicator file, system indicator file, canal/pump indicator file)
 - 9.2. All Hydrologic data files (exchange well history file, river flow history file, diversion history file, reservoir history file)
 - 9.3. All allocation files (diversion allocation file, reservoir allocation file, miscellaneous allocation file).
 - 9.4. Exchange pump list file, diversion list file, and water rights file.

<u>Status</u>: SWC has provided only some of these files. Those provided are insufficient to actually run the model analysis SWC's experts say they made. Specifically:

- a) the Accounting ZIP file SWC provided to counsel for Pocatello is different from the one SWC provided IGWA.
- b) the ZIP file provided to IGWA appears to have files for only one model run, and even that set is missing some of the files necessary to make the model run. Missing files include: source code and executable files (the basic

accounting model code); history files (hydrologic data files); and allocation files (water rights data files).

10. Data for return flow calculations (presented in appendix AC of SWC rebuttal report).

Status: SWC provided a spreadsheet that may contain these return flow calculations, but it is password protected. Therefore, none of its details or calculations can be reviewed or tested. Nor is it possible to manipulate any of the data contained in it.

11. All the raw diversion data and return flow data used to calculate returns as a percentage of irrigation diversions for Heise to Shelley, Shelley to near Blackfoot, Near Blackfoot to Neeley, Neeley to Minidoka, and Minidoka to Milner reaches.

Status: SWC provided a spreadsheet that may contain these return flow calculations, but it is password protected. Therefore, none of its details or calculations can be reviewed or tested. Nor is it possible to manipulate any of the data contained in it.

12. The workbook or spreadsheet that includes all the data and calculations.

Status: SWC provided a spreadsheet that may contain these data and calculations, but it is password protected. Therefore, none of its details or calculations can be reviewed or tested. Nor is it possible to manipulate any of the data contained in it.

5. All the temporal reach gains data used to develop Appendix AN figures of SWC rebuttal report.

<u>Status</u>: SWC provided a spreadsheet that may contain these return flow calculations, but it is password protected. Therefore, none of its details or calculations can be reviewed or tested. Nor is it possible to manipulate any of the data contained in it.

6. All ground water level and reach gains data used to develop Appendix AO figures of SWC rebuttal report.

Status: SWC's response concerning ground water levels refers generally to previous responses without identifying which well measurements were relied upon within the IDWR database. With regard to reach gain data, SWC provided a spreadsheet that may contain these calculations, but it is password protected. Therefore, none of its details or calculations can be reviewed or tested. Nor is it possible to manipulate any of the data contained in it.

White & Jankowski

Lawyers

January 19, 2006

VIA FAX AND EMAIL

John Simpson, Esq. Barker, Rosholt & Simpson PO Box 485 Twin Falls, ID 83303

Tom Arkoosh, Esq. Arkoosh Law Offices PO Box 32 Gooding, ID 83330

Gentlemen,

I called John yesterday to talk about the information provided to Pocatello on disk on Monday, January 16, 2006. John was not available so I left a message. As I haven't heard from either of you, I thought I'd better put our concerns in writing.

We made a request to you on January 5, 2006, for certain information considered by your experts in the course of the development of their opinions. We subsequently entered a Stipulation with you and the other SWC lawyers to describe the scope and nature of our agreement regarding the exchange of information. That Stipulation was approved by the Director in the ongoing SWC Delivery Call proceeding. Our engineers have now reviewed the data and spreadsheets SWC provided on January 16, 2006, and it appears that the SWC have failed to provide the information requested. We would request that you provide that information immediately.

Specifically, the SWC have failed to provide spreadsheets and data summaries in a form that can be manipulated by our engineers; you have also failed to provide the underlying formulae and information necessary to replicate the analyses performed by your experts. When we negotiated the stipulation we discussed at length the fact that both sides were entitled to the information considered by the experts, including sufficient information that the work could be repeated and reviewed. The attached memorandum, based on Greg Sullivan's preliminary evaluation, summarizes our current understanding of the deficiencies in the information provided by SWC. In addition, during our discussions prior to the Stipulation we asked for, and you agreed to provide, the resumes, lists of publications, and previous testimony experience of your experts. We have not received any of this information.

I should note that, unlike SWC, Pocatello did provide the relevant, requested information considered by our experts, including data and spreadsheets that could be manipulated by your experts. Your failure to meet your legal obligations to provide



information that includes the ability to reproduce the analyses of your experts, as well as your receipt of information from us that **does** meet these legal standards for disclosures, is prejudicial to the City of Pocatello in this matter.

Please consider this email the "request and conferencing" required under the Stipulation. I hope to hear today that you will provide the missing information as soon as possible. It is my understanding that IGWA's lawyers will contact you separately regarding the deficiencies in SWC's response to IGWA's requests. In any event, we expect to go forward with depositions next week. For any information that is not provided before that time, we will spend as much of the deposition as necessary inquiring into the missing information. As provided in the Stipulation, we reserve our other remedies, including motions to compel, motions to exclude, and motions to dismiss, and will act on those at the appropriate time.

Regards,

Sarah Klahn

Cc: Counsel of Record
A. Dean Tranmer, Esq.

Summary of Information Provided by the SWC in Response to January 5, 2006 Request for Information by White & Jankowski

Bibliography Documents

The following reports were provided:

HDR Engineering, Inc. 1998. "A&B Irrigation District Groundwater Evaluation". Prepared for A&B Irrigation District, Burley, Idaho.

McGuire, M., D.P. Lettenmaier, 2005. Use of satellite data for streamflow and reservoir storage forecasts in the Snake River Basin, ID. Unpublished manuscript, University of Washington

None of the other reports that were "checked" on the copy of the bibliography that was attached to the January 5, 2006 White & Jankowski letter were provided.

Chapter 8 and 9 Information, Data and Analysis

The SWC provided several spreadsheets and other computer files in response to the information request by White & Jankowski. Note that the spreadsheets were provided in a password-protected form that prevents us from being able to analyze the data or see the formulas. The following is a list of the files that were provided:

Annual diversions.xls

Annual natural flow, storage and total diversions, carryover storage for each of the SWC members (MID and BID diversions are combined) for the period 1910-2004. Annual total WD01 diversions by Snake River reach are also provided by the for the 1910-2004 period.

Annual diversions per acre for SWC members, 1930-2004.

Daily natural flow diversions.xls

Daily diversions for TFCC, NSCC, MID+BID, AFRD#2 and SWC Total for the years 1931, 1940, 1992, 2001, 1940, 1994, 1941, 1927, 1935, 2002, 1960, 2003, 1955, 2004.

Monthly diversions.xls

Monthly diversion for the each of the SWC for 1909-1918 and 1930-2004 for each of the SWC members from annual Water Master Reports (either sum of daily diversions or monthly data from the back of the reports)

Number of natural diversion days.xls

Summary of annual number of days of (1) any natural flow diversion, (2) only natural flow diversions and (3) any diversions for 1930-2004.

Tables and figures.xls

List of which of the above spreadsheets were used to prepare the Figures and Tables in Chapter 8.

Water Requirements Spreadsheets (7 spreadsheets, one for each SWC member)

A spreadsheet was provided for each of the SWC members containing (a) 1983 Allen and Brockway ET and CIR, (b) Worstell method seepage loss calculations and (c) monthly project water requirement calculations used to prepare Table 8-15.

Accounting.ZIP

Appears to be WD01 accounting program files for 2004. Daily input and output files appear to be provided for two sets of runs ("04a" and "04b") These are reported to the accounting files that underlie the analyses described in Chapter 9. Included is a memo from Tony Olenchiek that describes how to run the accounting program to replicate the historical 2004 results. No other documentation is provided.

Comments on SWC File Production

The following are the data requests from the January 5, 2006 White and Jankowski letter and comments on the adequacy of the files and information produced by the SWC. As stated above, all of the spreadsheets were provided in password-protected form that limits their usefulness.

1. Electronic data and summaries of WD01 diversions (natural flow, storage and total) for the 1930 – 2004 period (all data, not limited to the April – September period).

Annual diversion data were provided for each of the SWC members in *Annual diversions.xls*. The irrigated acreage used to derive the per acre diversions for the SWC members were not provided.

2. Electronic data and summaries, spreadsheets and charts relating to historical diversions of the SWC members individually and collectively (Table 8-1 through 8-14 and Figures 8-1 through 8-36).

It appears that the diversion data that underlie the tables and figures in Chapter 8 were provided. However, the spreadsheets contain only diversion data and not the actual tables and figures. Our request was intended to result in production of the spreadsheets that

contained the data and the tables and figures so that we could see specifically which data were used in their preparation. The SWC claims that the figures and tables were provided in "electronic" form as they were part of the PDF form of the reports.

3. Electronic data and summaries, spreadsheets and charts relating to the irrigation diversion requirements for the SWC members (Tables 8-15 and 8-16).

Allen and Brockway (1983) ET and CIR data were provided for each of the SWC members. The basis for the dry year estimates ("CU90%" and "CIR90%") was not provided. Data for the seepage loss calculations were provided. Maps showing the locations of the canal and lateral segments for which the seepage calculations were made were not provided, but would be helpful. The basis for the assumed Field Application Efficiencies were not provided.

4. Data, input and output files, and summaries thereof for the Accounting Program analyses described in Chapter 9.

As described above, it appears that two sets of 2004 WD01 Accounting runs were provided. What these runs represent and how they were developed was not described.

5. All materials describing how the accounting program analyses described in Chapter 9 were performed.

See comment for item 4, above.

Greg Sullivan

Spronk Water Engineers, Inc.

Report Preparation

The report was prepared by the firms of Brockway Engineering, Inc., ERO Resources Corp. and HDR Engineering, Inc. The following individuals prepared the report.

Brockway Engineering, Inc.

Chuck Brockway Sr., PhD, PE

ERO Resources Corp.

Dave Shaw, PE

Norm Young, PE

Jennifer Stevens, M.A.

HDR Engineering, Inc.

John Koreny, RG, PH

Steve Thurin, PE

Allison MacEwan, PE

Larry Land, PE

Following is a description of the responsibility for preparation of the SWC Expert Report dated December 30, 2005. In addition to the responsibility identified below, most of the report was reviewed by all three firms before being finalized.

Executive Summary	HDR, John Koreny	
Chapter 1	HDR, John Koreny	
Chapter 2	ERO, Norm Young &	
•	Jennifer Stevens	
Chapter 3	ERO, Norm Young	
Chapter 4	ERO, Norm Young	
Chapter 5	HDR, John Koreny	
Chapter 6	HDR, John Koreny	
Chapter 7	HDR, John Koreny	
Chapter 8	HDR, John Koreny	
Except "Evaluation of SWC Irrigation		
Requirements"	Brockway Engineering,	
·	Dr. Charles E. Brockway	
Chapter 9	HDR, John Koreny	
Except "Benefit to SWC Water Supply from Curtailment		
Of GW Pumping"	ERO, David Shaw	



John S. Koreny, RG, PH

EDUCATION

M.S. Civil and Environmental Engineering (Hydrology/Hydraulics), University of Washington

M.S. Environmental Science (Hydrogeology), Ohio State University

B.S. Environmental Science, Rutgers University

REGISTRATION

Professional Hydrologist (Surface Water) and Hydrogeologist: American Institute of Hydrology

State of Idaho: Registered Geologist

State of Washington: Licensed Geologist, Engineering Geologist, Hydrogeologist

State of Oregon: Registered Geologist

AFFILIATIONS

American Institute of Hydrology

American Water Resources Association John is a Principal Hydrologist with 15 years of experience as a professional consultant. John serves as the Hydrology Discipline Manager for HDR's Seattle office. He is experienced in ground water consulting and has completed regional aquifer studies for water-supply, water right and water resource projects. He has also completed surface water hydrology assessments for river basin and watershed analysis projects. He has served as a project manager for multi-disciplinary water resource studies for various private and public-sector clients. He is experienced in the use of hydrologic and hydraulic models. John has provided written or oral testimony for legal matters and administrative hearings and has published in several peer-reviewed journals.

Eastern Snake River Plain Aquifer Assessment, A&B Irrigation District, Rupert, ID. Evaluated the ground water hydrology and water supply conditions of the Eastern Snake River Plain Aquifer in the vicinity of the A&B Irrigation District. Analyzed the causes of on-going ground water declines in regional ground water wells and assisted the district with determining the potential long-term water supply impacts.

Portland Basin Groundwater Model, Portland, OR, Project manager for a two-year water-supply investigation for the Portland Basin including areas in Clark County, Washington and Multnomah and Washington County, Oregon. Groundwater use data was compiled from regional municipalities including Clark PUD and Cities of Vancouver, Battleground, Camas, Portland, Troutdale, Fairview and Wood Village, Evaluated water rights within the Portland Basin to assess the feasibility of expanding existing well fields. Surveyed groundwater users and water rights records to inventory water rights in the central Portland Basin in an effort to determine the amount of water rights allocated to users of groundwater from the deep aguifer system. Developed a complex model in order to simulate the complex hydrologic feature found in the Portland Basin (reversed hydraulic gradients within the basin, steep formation dips, aquifer pinchouts, basalt intrusions and structural faulting). The model included 10 layers and multiple rivers, streams, springs and pumping wells and was simulated in steady-state and transient mode. The model was used to determine regional aguifer yield capacity and to evaluate the hydraulic continuity between aquifers and surface water supplies in the basin.

Umatilla River Basin Hydrologic and Water Rights Investigation, West Extension Irrigation District, Hermiston, OR. Project Manager for a detailed basin-wide hydrologic assessment in support of long-term water right and water supply planning for the West Extension Irrigation District. West Extension Irrigation District was constructed as part of the Umatilla Basin Reclamation Project and participates in the Umatilla Exchange. The project

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involves investigating and providing remedies for the decline in West Extension's live flow Umatilla River water supply.

Spokane River Hydroelectric Project Water Quality Investigation, Avista Corporation, Spokane, WA. Project manager for the surface water quality investigations for the Spokane River Hydroelectric Project. The project involves assessing the effects of hydroelectric facilities on Spokane River water quality. These studies are part of the efforts necessary to complete relicensing of the project. The project involves an extensive water quality assessment including development of a CE-QUAL-W2 model for the river from Lake Coeur d'Alene to Lake Spokane, assessment of various water quality scenarios and preparation of multiple water quality reports.

Endangered Species Act Consultation, Rogue River Irrigation Districts, Medford, OR. Supported the Rogue River Irrigation Districts as part of the ESA consultation between the Bureau of Reclamation, the U.S. Fish and Wildlife Service and NOAA-Fisheries. Completed a professional review of the Biological Assessment including the habitat conditions, hydrologic analysis and water rights studies. Developed a scientific analysis of hydrologic, geomorphic and habitat conditions as part of an independent submittal to the Services supporting preparation of a Biological Opinion.

Everglades Restoration Project, FL. Hydrologist working on the Lake Okeechobee-St. Lucie River basin restoration. Assisted with hydrologic studies to characterize the watershed and evaluate options to reduce nutrient loading and stormwater discharge to the St. Lucie estuary.

City of Vancouver, Wellhead Protection Planning, Vancouver, WA. Completing wellhead protection planning for the City of Vancouver, Washington. Reviewing multiple ground water hydrology models and potential contamination migration pathways. Assisting the district with regional ground water supply protection and planning efforts.

Skagit River Watershed Assessment, Skagit Council of Governments, Skagit County, WA. Completed a groundwater/surface water study for the Skagit River basin. Collected and synthesized data on groundwater/stream flow interactions, water rights and conjunctive use for regional groundwater management and watershed planning. Completed an assessment of groundwater and surface water interactions for the Skagit River basin. Developed a complex groundwater model over an area of approximately 300 square miles including over ten public-supply wellfield for regional purveyors. The model passed review by a Technical Advisory Group and the Washington Department of Ecology. The groundwater flow model was used along with a continuous surface-water flow model (HSPF) to evaluate impacts of groundwater use on low river flow.

Pyramid Lake Tribe, Pyramid Lake, NV. Technical review consultant for litigation support associated with water resource and groundwater issues associated with a dewatering well field for a proposed open-pit gold mine. Evaluated the interactions between the Truckee River, area springs and the

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proposed dewatering system. Reviewed groundwater modeling studies and environmental impact statement reports and submitted written testimony in support of a suite under the provisions of the Clean Water Act.

Expert Review Services, Nooksack River Watershed Model, Whatcom County PUD, Whatcom County, WA. Provided expert review services to Whatcom County PUD and Birch Bay Water District for review of linked groundwater/surface water models in preparation by Utah State University for the WRIA 1 watershed assessment. Providing technical support to the Technical Advisory Committee, assisting with project scoping and reviewing draft models and deliverables. Completing a professional review of linked surface and groundwater models for water supply and water quality analysis. Reviewed conceptual and numerical models and developed an evaluation of the modeling effort completed for the project.

Hydrologic Assessment, Miles Sand and Gravel Company, Roy, WA. Project Manager for a hydrologic and geotechnical evaluation of a sand and gravel mine permit renewal. Supervised field investigations, data analyses and development of a three-dimensional groundwater flow model and seepage model to quantify the changes in hydrologic regime and groundwater temperature impacts associated with expansion of the existing mine. Completed a contributing basins hydrologic model and floodplain hydraulic analysis in support of design of a flood protection structure. Evaluated the potential for thermal impacts to aquatic resources from warming of groundwater. Provided regulatory negotiations and testimony at public hearings.

Walla Walla River Basin Hydrology, Water Right and HCP, Clarkston, WA John is completing surface water and ground water studies for a basin-wide water supply and streamflow analysis for the Walla Walla Basin Watershed Council and Bi-State Habitat Conservation Plan. This involves assessing current and future water use, water rights and irrigation requirements, and available streamflow. Detailed studies are being completed to assess possible options to provide additional water to mitigate for impacts from the use of current water right allocations from the mainstem Walla Walla River including aquifer recharge. An aquifer recharge and streamflow augmentation project is currently in the pilot testing stage as a possible mitigation alternative. The project involves synthesis of hydrology, water use, water quality, irrigation, and fish flow requirements in the basin. The project involves extensive use of detailed hydrologic water models to assess water management options in the basin.

Mid-Snake River Basin Water Storage, Water Quality Study, Asotin PUD, Dayton, WA John is completing a hydrologic investigation to evaluate options to augment water storage and improve water quality in the Middle Snake River watersheds including the Tucannon River, Asotin Creek, and Pataha Creek watersheds. Water right studies were completed to determine the total allocated water rights in these basins. Detailed stream flow studies were completed to determine the range of historical streamflow available for instream habitat and out-of-stream water use requirements. Water storage

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alternatives are being considered to mitigate for the impacts from current water right allocations and diversions in the mainstem Tucannon River and Pataha Creek basins. The project involves development of streamflow temperature modeling (QUAL2E) and ground water analysis to evaluate surface and ground water management and storage alternatives.

Mid-Columbia Technical Work Group, Groundwater Feasibility Study Lake Wenatchee, WA. Participated in a groundwater supply feasibility study for a multi-governmental organization involved in siting a fish hatchery recovery project. Researched area hydrogeology and developed recommendations for siting production wells for a large alternate water-supply source.

Sewer Dewatering Geologic and Hydrogeologic Characterization, City of New Albany, New Albany, OH. Characterized the geology and hydrogeology of the greater New Albany area for proposed sewer (open-cut and tunnel) dewatering activities. Developed a dewatering design for the sewer alignment. Identified potential residential wells that would be affected by sewer dewatering. Provided assistance for legal counsel on the effects of sewer dewatering on residential water supplies.

Groundwater/Surface Water Study for Proposed Biosolids Facility, City of Ferndale, Ferndale, WA. Completed a groundwater model to evaluate the potential impacts of nutrient loading from a biosolids facility proposed by the City of Ferndale. Completed aquifer testing, streamflow gaging, hydrologic analysis and model development and calibration. Evaluated hydraulic continuity and the impacts of nutrient loading to groundwater and surface water.

Confidential Client, OR. Provided third-party review of an application for the Gray-Tucker sand and gravel mine in Oregon. Reviewed hydrogeologic investigation report and groundwater model prepared for the design of a dewatering system. Provided written testimony for the Hearing Examiner outlining the results of the review.

Port Orchard/McCormick Woods Water Rights Review, Department of Ecology, Bremerton, WA. Senior hydrologist for review of water rights applications on behalf of the Washington State Department of Ecology. Reviewing regional hydrogeologic assessments and evaluating validity of water rights applications. Provided expert, third-party review of a multi-layer groundwater flow model.

Groundwater Contaminant Fate and Transport Model, Douglas Management Company, Bellingham, WA. Developed a groundwater contaminant transport model to evaluate the surface water loading of contaminants from a wood treating site located near Bellingham Bay. Incorporated a density-dependent correction with a variable head boundary to simulate the effects of tidal influence at the site. Developed steady-state and transient models of the site and calibrated the model to aquifer response data from tidal fluctuations. Evaluated remedial alternatives and incorporated the

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preferred remedial alternative of a partial barrier wall and recovery trench into the model simulations. The model passed through a review by Washington Department of Ecology.

Surface Water/Groundwater Hydraulic Connection Study, Potlatch Corporation, Lewiston, ID. Provided technical assistance for the evaluation of aquifer/river interactions and aeration pond seepage at a large industrial facility adjacent to the Clearwater River. Reviewed previous subsurface seepage studies and water balance modeling and provided recommendations and assistance with quantifying seepage to surface water bodies for the purposes of evaluating TMDL limits on the river.

Ramar Estates Development, Hydrogeologic Assessment, Mona Lisa Estate Partners, Monroe, WA. Reviewed two groundwater flow models developed to assess the hydrogeologic regime and associated impacts two developments would have on the quality and quantity of groundwater and slope stability in the area. Conducted aquifer tests, subsurface explorations, and groundwater monitoring. Used data from these activities to develop computer models of groundwater conditions, nitrate loading, water balance, and site planning design options.

Well Field Analysis, City of Portland, OR, Performed aquifer pumping, well capacity and well efficiency tests for 26 wells located in the City of Portland Columbia South Shore Well Field. Analyzed the well field hydraulic characteristics and provided recommendations for expansion alternatives.

Well Field Services, City of Marrietta, Marrietta, OH. Performed aquifer testing, hydrogeologic characterization, aquifer testing, and well-head protection for the expansion of an existing well field. Developed a three-dimensional groundwater flow model using the MODFLOW code under transient conditions. Provided assistance for contaminant plume interception and management at the well field.

Sturgis Welt Field CERCLA Investigation. Technical reviewer for a hydrogeologic characterization of a water-supply aquifer contaminated with VOCs. Reviewed groundwater assessment, aquifer tests, soil-vapor extraction tests, groundwater modeling analysis and recovery system design. Provided technical support for groundwater modeling analysis and model modifications.

Municipal Well Field Study, City of Pataskala, Pataskala, OH. Performed a hydrogeologic study to identify areas where the City of Pataskala could feasibly site a municipal well field. Performed seismic studies, hydrogeologic characterization, test well installation, groundwater pumping tests, aquifer analyses and groundwater modeling study.

West Scioto Interceptor, Hydrogeologic Characterization, Columbus, OH. Provided hydrogeologic characterization and numerical dewatering analysis for a multi-million-dollar tunneling project in fractured limestone for a deep sewer installation below the Scioto River Project involved extensive

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hydrogeologic investigation, aquifer testing and dewatering to facilitate tunneling and sewer construction.

Watershed Assessment for Lower Columbia River Watershed; Lower Columbia Fish Recovery Board; Clark, Cowlitz and Skamania County, WA. Completed a watershed assessment for the Kalama, Lewis, East Fork Lewis, Salmon, Burnt Bridge, Lacamas and Washougal watersheds. The watershed assessment components include streamflow analysis, water use, land use, hydraulic continuity, water quality and growth projections. Evaluating the effects of surface and groundwater use, water allocations and land use on stream flow, and assessing areas where low-flow issues are a primary concern for fish recovery.

Hydrology/Hydraulics Study, Olentangy River and Wetlands Restoration, Columbus, OH. Completed a detailed hydrology evaluation of a constructed wetland pilot project designed to evaluate water quality enhancement of the Olentangy River. Hydrology of project incorporated both surface and groundwater aspects. Performed stream flow gauging, water balance assessment, subsurface investigation, hydrology monitoring, water quality assessment and modeling to assist with wetland system design

Hydrologic Assessment, Concrete Nor' West, Belleville, WA. Assisted with the evaluation of ground and surface water hydrology analysis for a proposed gravel mine in Skagit County, Washington. Performed field investigations, groundwater assessment, water budget analysis and evaluated the changes in hydrologic regime and groundwater/surface water

Malheur Wildlife Refuge Hydrologic Model, U.S. Fish and Wildlife Service, Burns, OR. Hydrologic analysis for the USFWS Malheur Wildlife Refuge water supply and irrigation system. Evaluated the refuge water supply and assisted with management decisions related to water supply forecasting, routing, storage and irrigation delivery.

Crab Creek Instream Flow Assessment, Lincoln County Conservation District, Lincoln County, WA. Performed an instream flow assessment study for the Crab Creek drainage in Lincoln County, Washington. Evaluating in-stream fish habitat requirements and out-of-stream water demand to develop in-stream flow recommendations. Analyzing the normative flow hydrology of the watershed to determine the influence of out-of-stream use and the potential for streamflow depletion.

Rock Creek Subbasin Hydrology Evaluation, Jack McCann Company, Ravensdale, WA. Completed a hydrologic evaluation for a proposed development in Ravensdale, Washington. Evaluated surface water and groundwater issues at the site, including floodplain delineation, groundwater flooding and storm-water infiltration. Evaluated design storm events, high and low-flow periods and groundwater hydrology. Prepared joint groundwater/ surface water models using HEC-HMS, MODFLOW and HEC-RAS. Represented the applicant during negotiations with King County Department

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of Development and Environmental Services and provided testimony during hearings.

Heat Transport Surface Water Study, Whatcom County, WA. Completed a heat transport model for a point-source NPDES application for discharge of warm water from pipeline hydrotesting operations. Prepared a thermal transport surface water model to evaluate the potential for heat warming from the discharge and assisted with regulatory negotiations.

Murray Creek Flood Analysis, Manke Lumber Company, Roy, WA. Senior hydrologist for a floodplain hydraulic analysis to determine floodplain areas and flood-stage for a proposed aggregate mine. Completed a peak-flow analysis for the 100-year recurrence streamflow. Developed a one-dimensional hydraulic backwater model using HEC-RAS. Determined floodway and flood fringe and assessed the potential backwater effects from encroachment based on several design alternatives. Completed regulatory negotiations on behalf of client for encroachment mitigation.

Professional Endeavors

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Journal Publications and Presentations

Washington Water Law Conference, 2006 (invited speaker), Water Right Mitigation Strategies, Seattle, Washington.

AWRA National Conference, 2005. Conjunctive management of water supplies in the Northwest U.S., Seattle, Washington.

Oregon Water Resources Congress, 2004. Stream temperature water quality requirements: Implications for irrigation districts. Hood River, Oregon.

AWWA National Conference, 2004. Skagit River Watershed: Ground water and surface water modeling to evaluate impacts on flow and fish from water use. Bellevue, Washington.

American Institute of Hydrology National Conference, 2002, Streamflow variability, hydrogeology, water use and impacts on fish habitat in the Lower Skagit River watershed. Portland, Oregon.

Koreny, J.S. and T.T. Fisk. 2001. Utilizing induced recharge for regional aquifer management. *Journal of the American Water Resources Association*, 37(2): 453-466.

National Groundwater Association National Conference (co-presenter), December 2000. Transboundary groundwater flow and potential dispute issues, Las Vegas, Nevada.

Koreny, J.S. and T.T. Fisk, 2000. Hydraulic continuity of the Portland Basin deep aguifer system. *Environmental and Engineering Geology*, 6(3): 279-292.

Association of Civil Engineers Water Resources Conference (co-presenter), 1999 Aquifer storage and recovery. Seattle, Washington.

National Groundwater Association Northwest Focus Conference. Feb 17-18, 2000. Hydrogeology of the Portland Basin: Deep aquifer yield analyses, Portland, Oregon.

Koreny, J.S., W.J. Mitsch, E.S. Bair and X. Wu, 1999. Regional and local hydrology of a created riparian wetland system. *Wetlands* 19(1): 182-193.

REMCON, 1998. Case study of implementation of the revised Oregon regulations at the Oregon Fir site: Hydrogeologic considerations and water-supply issues. Portland, Oregon.

Society of Wetland Scientists Annual Conference, 1995. Hydrology of a constructed riparian wetland system. Kansas City, Missouri.

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Additional Training

Surface Water Modeling (BASINS)
Hydraulic Modeling (HEC-RAS)
Wetland and River Restoration
Design and Analyses of Aquifer Tests

Geochemical Modeling

Analytical Groundwater Modeling and Capture Zone Analyses

Numerical Groundwater Modeling

Groundwater Transport Modeling

GIS Applications to Hydrogeology

Remediation Technologies

Groundwater and Soil Remediation

Bioremediation

Groundwater Investigation Techniques

Applied Hydrogeochemistry

Statistics for Groundwater Monitoring

Second Information Response Surface Water Coalition Experts January 20, 2006

This document provides a summary of our response to the information request dated January 19, 2005 titled, Summary of Information Provided by the SWC in Response to January 5, 2006 Request for Information by White and Jankowski. Our response is in the same order as the requests presented in the documented cited above.

Bibliography Documents

The documents that are available in electronic format have been posted at the following FTP site:

ftp://arch.hdrinc.com/projects/swc/

<u>UserName</u> <u>Password</u>

SWCProject SwcPr@j3ct

Some of the requested documents are in the Appendix of the report under Appendix AP. Other documents are on the IWRRI web page or on the IDR FTP. We have not had time to compile a few of the requested journal articles. These can be obtained from a university library using an article or document request service.

Chapter 8 and 9 Information, Data and Analysis

We have provided a response to the questions designated in bold text in the information request cited above.

• The spreadsheets are password protected. The data can be viewed simply by opening the spreadsheet. The formulas in the spreadsheet may be viewed by entering the command, Tools, Options, View, Window Options, Formulas.

Comments on SWC File Production

- The per-acre diversion data is the original data from the WD 01 record. Irrigated acreage is presented in the spreadsheets provided.
- The graphs and tables have already been provided in *.pdf format. Copies of the excel files for Tables 8-1 to 8-14 have been posted to the FTP site above.
- Additional information regarding the CIR calculations has been posted to the FTP site above.
- The requested Accounting Program documents and files generated as part of our analysis have already been provided. The report explains the method. Reports by Sutter and Robertson and Sandoval provide general information on the Accounting Program, and are on the FTP site.



Bibliography Documents

Except for the two items listed below, all of these are in the public domain and can be obtained from libraries or on-line sources.

The McGuire article is enclosed in electronic format.

The HDR report for A&B is scanned in and enclosed in electronic format.

List of Information Requested

1. Diversion Data

This data is included in that requested in #2 below.

2. SWC Diversions

The data presented in Tables 8-1 to 8-14 are already provided in electronic format in the *.pdf submittal. The data used for Figures 8-1 to 8-36 is attached. The charts have already been submitted in electronic format in the *.pdf copy of the report.

3. Irrigation Diversion Requirements

This information is attached.

4. Accounting Program

The requested information is attached.